

...insert your project name...



Welcome ronny

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all data without guarantee - Accuracy: +/-15%

xcopterCalc - Multicopter Calculator

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General	Model Weight: 37000 g [incl. Drive] 1305.1 oz	# of Rotors: 8 coaxial	Frame Size: 1400 mm 55.12 inch	FCU Tilt Limit: no limit	Field Elevation: 2800 m ASL 9186 ft ASL	Air Temperature: 15 °C 59 °F	Pressure (QNH): 1013 hPa 29.91 inHg	
Battery Cell	Type (Cont. / max. C) - charge state: LiPo 16000mAh - 15/25C - normal	Configuration: 12 S 2 P	Cell Capacity: 16000 mAh 32000 mAh total	max. discharge: 85%	Resistance: 0.0015 Ohm	Voltage: 3.7 V	C-Rate: 15 C cont. 25 C max	Weight: 346 g 12.2 oz
Controller	Type: max 80A	Current: 80 A cont. 80 A max	Resistance: 0.0035 Ohm	Weight: 105 g 3.7 oz	Accessories	Current drain: 0 A	Weight: 0 g 0 oz	
Motor	Manufacturer - Type (Kv) - Cooling: T-Motor U11-120 (120) good	KV (w/o torque): 120 rpm/V Prop-Kv-Wizard	no-load Current: 0.7 A @ 10 V	Limit (up to 15s): 4000 W	Resistance: 0.057 Ohm	Case Length: 50 mm 1.97 inch	# mag. Poles: 14	Weight: 730 g 25.8 oz
Propeller	Type - yoke twist: T-Motor CF 0°	Diameter: 26 inch 660.4 mm	Pitch: 8.5 inch 215.9 mm	# Blades: 2	PConst / TConst: 1.15 / 1.0	Gear Ratio: 1 : 1	<input type="button" value="calculate"/>	



Load:

Hover Flight Time:

electric Power:

est. Temperature:

Thrust-Weight:

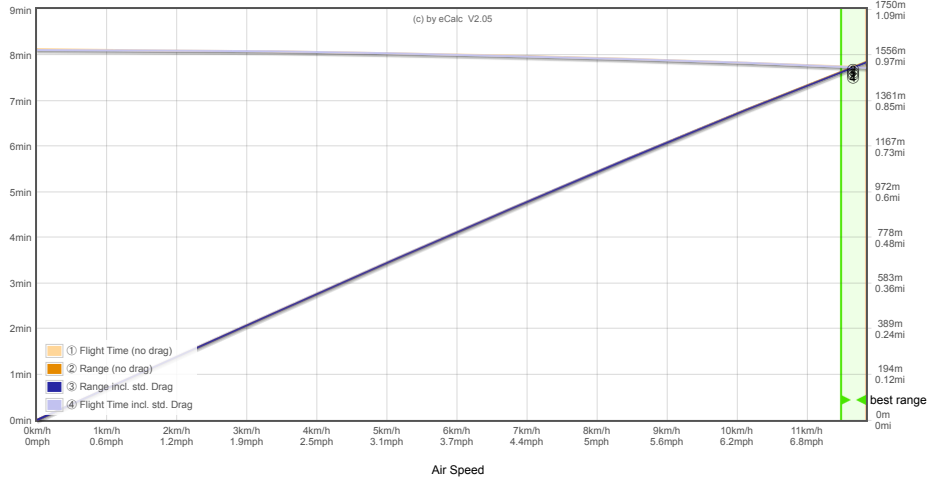
specific Thrust:

Configuration

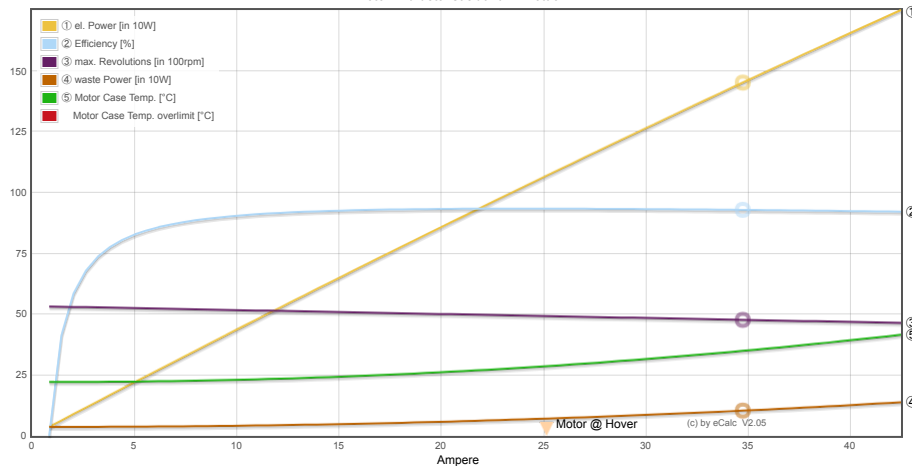
Remarks:

Battery	Motor @ Optimum Efficiency	Motor @ Maximum	Motor @ Hover	Total Drive	Multicopter
Load: 8.85 C	Current: 24.29 A	Current: 35.38 A	Current: 25.18 A	Drive Weight: 16482 g	All-up Weight: 37000 g
Voltage: 41.85 V	Voltage: 42.57 V	Voltage: 41.73 V	Voltage: 42.50 V	581.4 oz	1305.1 oz
Rated Voltage: 44.40 V	Revolutions*: 4935 rpm	Revolutions*: 4755 rpm	Revolutions*: 3796 rpm	Thrust-Weight: 1.2 : 1	add. Payload: 1391 g
Energy: 1420.8 Wh	electric Power: 1033.8 W	electric Power: 1476.4 W	Throttle (log): 77 %	Current @ Hover: 201.48 A	49.1 oz
Total Capacity: 32000 mAh	mech. Power: 965.0 W	mech. Power: 1369.9 W	Throttle (linear): 79 %	P(in) @ Hover: 8945.5 W	max Tilt: 15 °
Used Capacity: 27200 mAh	Efficiency: 93.3 %	Power-Weight: 319.2 W/kg	electric Power: 1070.3 W	P(out) @ Hover: 7883.7 W	max. Speed: 13 km/h
min. Flight Time: 5.8 min		Efficiency: 92.8 %	mech. Power: 985.5 W	Efficiency @ Hover: 88.1 %	8.1 mph
Mixed Flight Time: 7.8 min		est. Temperature: 35 °C	Power-Weight: 241.8 W/kg	Current @ max: 283.05 A	est. rate of climb: 1.2 m/s
Hover Flight Time: 8.1 min		est. Temperature: 95 °F	Efficiency: 92.1 %	P(in) @ max: 12567.4 W	236 ft/min
Weight: 8304 g		Wattmeter readings	est. Temperature: 31 °C	P(out) @ max: 10958.9 W	Total Disc Area: 137.01 dm²
292.9 oz		Current: 283.04 A	88 °F	Efficiency @ max: 87.2 %	2123.65 in²
		Voltage: 41.85 V	specific Thrust: 4.32 g/W		with Rotor fail:
		Power: 11845.2 W	0.15 oz/W		

Range Estimator



Motor Characteristic at Full Throttle



Important Note: Before flight recheck your max. current! If your Current, el. Power or RPM are over the manufacturers

for printing use Landscape format
* The manufacturer limitation is NOT monitored